ANACONDA SMELTER NPL SITE

Anaconda – Deer Lodge County, Montana Linda Bouck, Anaconda – Deer Lodge County Catherine LeCours, State of Montana



Site History



- Anaconda Copper Company operated mine and smelter from late 1800's to 1980
- Single industrial and major property stakeholder in community

That was then...





Current Status



- Contamination deposition from:
 - Aerial emissions
 - 100 year flood event
 - Waste and tailings piles
 - Human movement of contaminated soil
- 300 square miles of impacted soil, indoor dust, and water
- Heavy metal contamination, primarily lead and arsenic

This is now...





Thank you E² Inc for the photo.

Pre-Superfund Designation



- Atlantic Richfield (AR) purchased Copper Company in 1977, primary responsible party
- Smelter closed 1980
- Placed on NPL September 1983
- Widespread human and ecological health risks
- Community recognized preliminary actions not compatible with future vision and asked for more

Superfund Designation



- Prior to EPA Order, AR activities included:
 - Purchased property and relocated several residences
 - Demolished and buried on-site main processing structures
 - Fencing and signage
- Emergency response relocated the community of Mill Creek in 1988
- Currently 7 Operable Units and 5 Records of Decision

Atlantic Richfield



- Very active and strong presence in community
- On-going remediation
- Effective and timely communication with county and public
- Provide limited funding to County
- Need to work from same maps/covenants
- Need to use consistent language/terminology for public understanding

Development Permit System



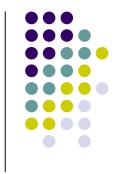
- AR funded County-wide Permit System and Growth Policy
- AR continues limited funding for county resources
- In place since 1992
- Simple application combined with building permits (One-Stop Permitting)
- Permit System include:

Deed restrictions Soil sampling

Excavation permits Zoning

Well sampling





Notifies purchasers of Superfund designation and development permit requirements

What works well:

- Effective notification for prospective purchasers
- General education/initial introduction to Superfund
- High compliance rate

- GIS system to track properties
- Clear, consistent, and detailed maps of Superfund overlay
- County-wide staff (not just Planning Dept) education and training
- Ability to "de-list" individual properties





Informs land owners of best management practices for contaminated soil

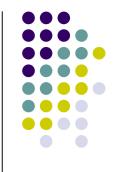
What works well:

- Education controls movement of contaminated soils
- High compliance rate
- Empowers property owners to protect themselves
- Ensures protection of remedy

Keys to success:

GIS system to track properties





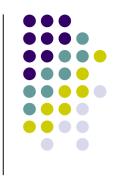
Provides initial property-specific concentrations to make development decisions

What works well:

- Control of contaminated soils
- Not relying on site-wide generalizations
- Provides detailed information to property owners regarding land use
- Local waste repository

- GIS system to track properties
- Consistent soil sampling techniques
- Constant and concise communication with responsible party, i.e., reclamation, data results





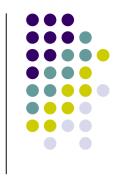
Ensures appropriate land use for the remediation

What works well:

- Protects community from contaminated development
- Allows flexibility in remediation for future land use
- Effective educational tool for public

- GIS system to track properties
- Clear, consistent, and detailed maps of Superfund overlay
- County-wide staff (not just Planning Dept) education and training
- Constant communication with AR and restrictive covenants

Well Sampling



Intended to provide well water information to public

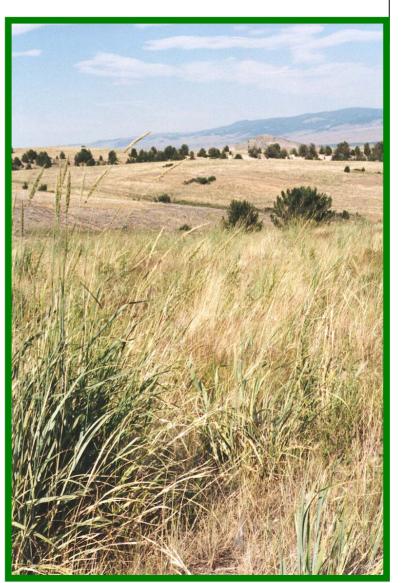
What works well:

- Good concept
- AR tracks well permits, sample, and remediate as needed
- AR provides data to county

- Educate well drillers
- State-wide permit system to assist tracking
- GIS system to track properties

Before and After...







Golf Course





Additional Information



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Even More Information



- http://www.epa.gov/region8/superfund/sites/mt/ Anaconda/anacondahome.html
- http://www.anacondamt.org
- Anaconda Montana: Copper Smelting Boomtown on the Western Frontier, by Patrick F. Morris
- http://www.oldworks.org (golf course)

